

Remarks/Arguments

The Office Action of July 27, 2004 and the references cited therein have been carefully studied and reviewed, and in view of the foregoing Amendment and following representations, reconsideration is respectfully requested.

Claim 1 has been amended so as to more clearly patentably distinguish the present invention over the reference to Chang et al. (USP 6, 206, 760). More specifically, claim 1 has been amended to recite that the spray nozzle(s) 34 is/are oriented to spray cleaning solution over a region encompassing the entire upper surface of the polishing pad 14, the polishing head 22 and the conditioning head 26 (FIGS. 4 and 5 and paragraph [0175] of Applicant's original specification). Thus, the mobility of the slurry foreign substances on the polishing pad 14 is enhanced so that the slurry and foreign substances will move along the polishing pad 14 when the pad 14 is rotated at a high speed, as will substances that fall onto the pad that are sprayed off of other components such as the polishing and conditioning heads. (paragraph [0180]).

For a reference to anticipate an apparatus claim under 35 USC 102, it is axiomatic that the reference must expressly or inherently disclose each and every claimed feature of the apparatus. Chang et al. do disclose CMP equipment comprising spray nozzles 66 that may be aimed at the conditioner arm 82 or conditioner disc 90 of a pad conditioning unit (col. 7, lines 37 – 41). Chang et al. also

disclose the possibility of directing similar nozzles toward the top horizontal surface of a polishing head 74 (col. 7, lines 23 – 25).

The Examiner takes the position that Chang et al. also disclose the nozzle(s) 66 as being capable of “being oriented to spray the cleaning solution over a region encompassing the upper surface of the polishing pad”. In this respect the Examiner references col. 7, lines 37 – 41 of the Chang et al. reference. However, the polishing pads 92, 94 and 96 are first described in the Chang et al. reference at col. 7, lines 41 – 46). There is no disclosure whatsoever in this passage, or in any other portion of the disclosure, of the nozzles 66 being used to spray a region that would encompass the upper surface of any of the polishing pads 92, 94 and 96 and, in particular, **the entire upper surface**.

Possibly, the Examiner considers that the nozzles 66, for use in spraying the conditioner arm 82, could be redirected to spray the polishing pad 92. Even if this were to become the case, it is not inherent that those nozzle could direct a spray over a region encompassing the **entire** upper surface of the polishing pad 92, as now called for in claim 1.


For these reasons, namely because of the differences between Applicant’s invention, as is now claimed, and the references, including the lack of express or inherent disclosure in Chang et al. of CMP equipment comprising spray nozzle(s) that is/are oriented to spray cleaning solution over a region encompassing the entire upper surface of a polishing pad, and over a polishing head and a conditioning head of the

equipment, it is seen that the reference does not anticipate Applicant's claims under 35 USC 102. Accordingly, early reconsideration and allowance of the claims are respectfully requested.

Respectfully submitted,
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